

Smart Building Intercom

ASK-880 System V1.6

# User Manual

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## Contents

Chapter 1 Conception .....	1
Chapter 2 ASK-880 System .....	1
Chapter 3 Installation cautions .....	4
Chapter 4 System setup .....	7
Section 1 Outdoor camera .....	7
Section 2 Fence machine .....	8
Section 3 Decoder room number .....	8
Section 4 Concentrator .....	9
Section 5 Management center .....	10
Chapter 5 Common fault handling methods .....	12
Chapter 6 Technical support and service .....	13
Chapter 7 Other instructions .....	13

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## Chapter 1 Conception

### I Building system video door phone and its project

Building system video door phone is the integrated equipment which is installed in residential area, unit buildings, office buildings and other buildings. With the function of identifying visitors by pictures and voice, controlling door release and sending help messages to management center when encountering emergency situations, and the management center can also release information to the residents.

Building system video door phone project is the process that combines and adjusts the building system video door phone by the means of cable transmission according to the relevant requirement of the weak current and the security project.

### II How to process the building system video door phone

i First of all, try to know clearly the performance, specification and installation methods of all the equipments in the building system video door phone.

ii Select the model and configuration for the system equipment according to the actual situation and expected function requirements of building or the complex.

iii Check and correct the layout and the electric environment of the building or the complex according to the configuration and installation requirements.

iv Install and adjust the system according to the installation instruction and relevant process standard until it is acceptance.

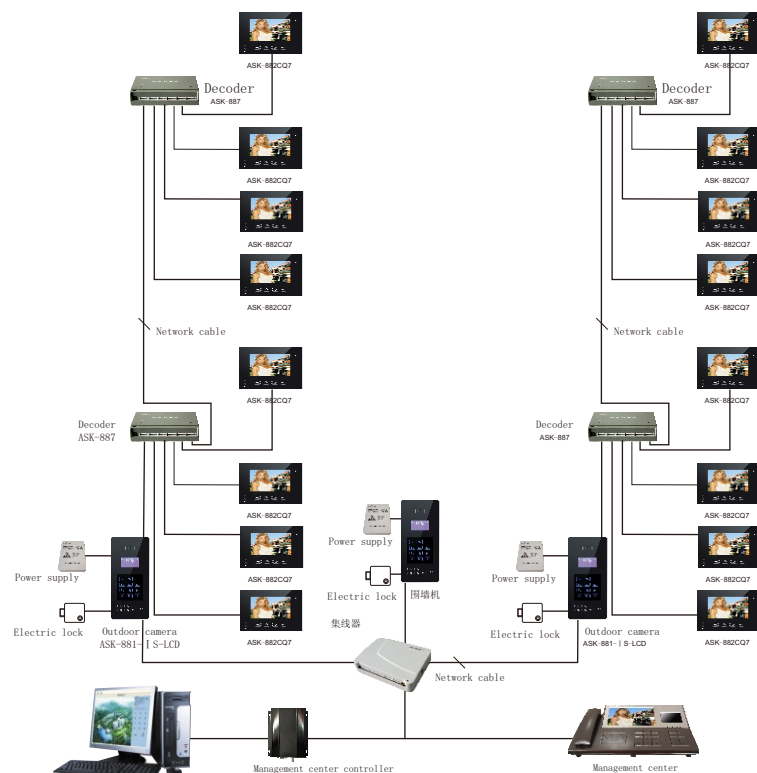
## Chapter 2 ASK-880 system

Our smart building system video door phone is made up of outdoor camera, indoor monitor, decoder, management center, and other auxiliary equipments. Our outdoor camera (ASK-881) has kinds of model and function for your option according to your demands.

### System function and character

- The Maxi. capacity is 9999 indoor monitors
  - Touch button/button, LCD/LED display screen
  - CCD night vision function
  - Adapt micro computer control, simple circuit, strong function
  - Soft plait, decoding method, no relation to the structure of building
  - Bus line to user, foolish connection, short circuit will not affect to system
-

- Password unlock
- IC/ID card unlock (outdoor camera should has access control function)
- Video and audio compatible, duplex intercom
- With Chinese/English message issue function
- With network function



ASK-880 Network building video intercom connection diagram(P1)

Connection of flat cable decoder:

Network cable include 4 pairs of twisted cable and shielding net.

Color: Brown, Brown White, Green, Green White, Blue, Blue White, Orange, orange White.

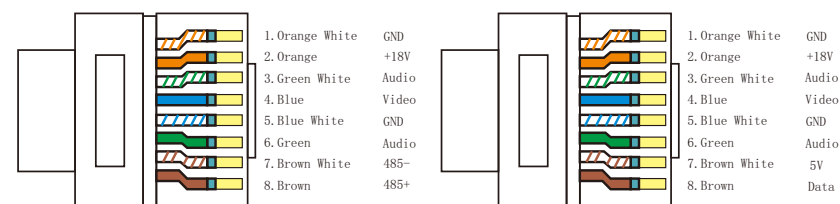
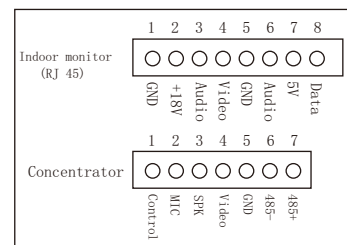
7P Red(+18V)	connect with the Orange of network cable
7P Yellow	connect with the Green White of network cable
7P Green	connect with the Green of network cable
7P White(Video)	connect with the Blue of network cable
7P Black(GND)	connect with the Orange White and Blue White of network cable
7P Brown(485+)	connect with the Brown of network cable
7P Orange(485-)	connect with the Brown White of network cable

All the 7P plugs in the residential area wiring connection refers to above methods.  
(Note: Red of 7P is power positive (+) and Black of 7P is power negative (-).)

RJ 45 decoder connection:

Make network crystal jack as below:

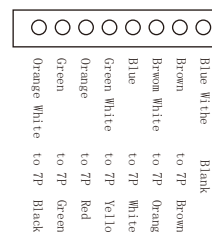
Decoder IN OUT (Indoor monitor) RJ 45 connection (P 2)



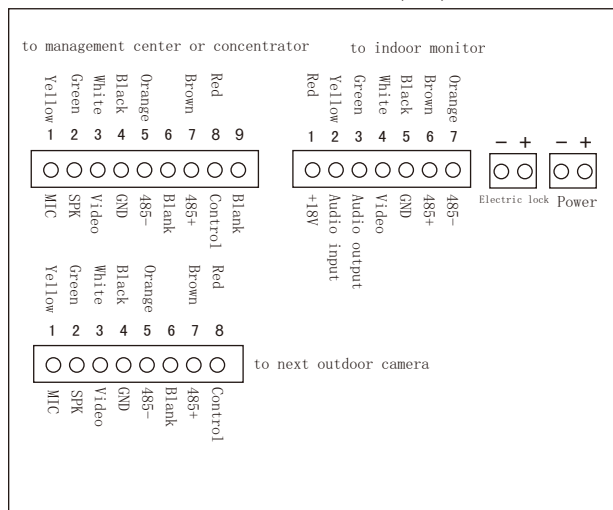
Decoder (outdoor camera to decoder) IN/OUT socket

Decoder F1-F4 socket

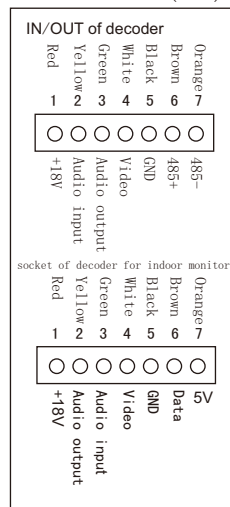
Management center connection



## Outdoor camera PCB board terminals(P 3)



## 7P flat cable(P 4)



## Chapter 3 Installation cautions

### Adjustment and problem:

1) There's a volume knob on the outdoor camera main PCB board, do not adjust the volume too loud in case that it makes Whistler. There's a volume limitation of this system indoor monitor, do not try to adjust it lead to damage the knob.

2) The wiring connection must be completely correct, otherwise, it will leads the whole system out of work. The wrong connection of the bus line may bring all of the indoor monitors of this building into failing to ring the bell. When encountering the above situation, please power off most of the floor protectors, and check one by one until you find out the fault.

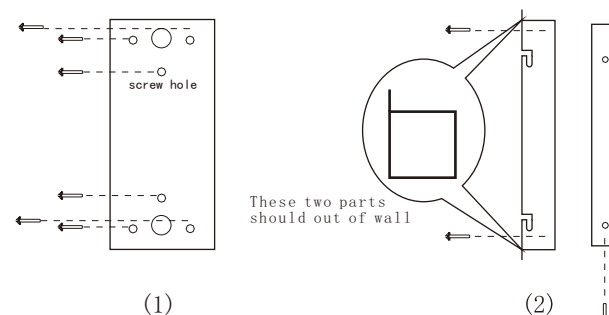
3) When the outdoor camera calls the indoor monitor, if the outdoor camera display "CALL" and stop there, it means the bus line cut off or the yellow line is open circuit. If there is no bell ring, it means it fails to detect the indoor monitor. The reason maybe the address code of the outdoor camera does not match with that of the indoor monitor. If it's abnormal or has no voice when the outdoor camera calls all the indoor monitors, maybe

### Outdoor camera installation

#### (1) Installation on the door

In the unit door, on the fixed side in general, choose a proper position and drill a installation hole which the size according to the outdoor camera. The distance between the ground level and the bottom of the outdoor camera is approximately 135cm.

Installation as below picture:

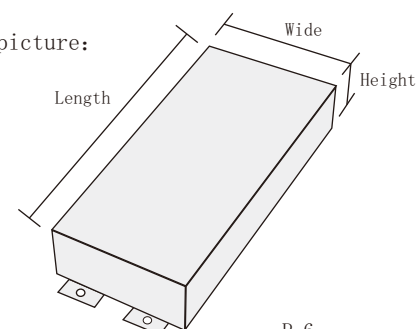


P 5

Hole (1) use the Wafer head Self tapping screw (M3X6) to fix the seal, and then get the rear cover well fixed by using the self tapping screws (M3X6) according to the direction of the arrow. Fix the door accessories on the hole (2) by using the self tapping screws.

At last, make an iron box, flanging the surroundings and fix it on the hole of the iron door, to avoid of manmade destruction.

Iron box as below picture:



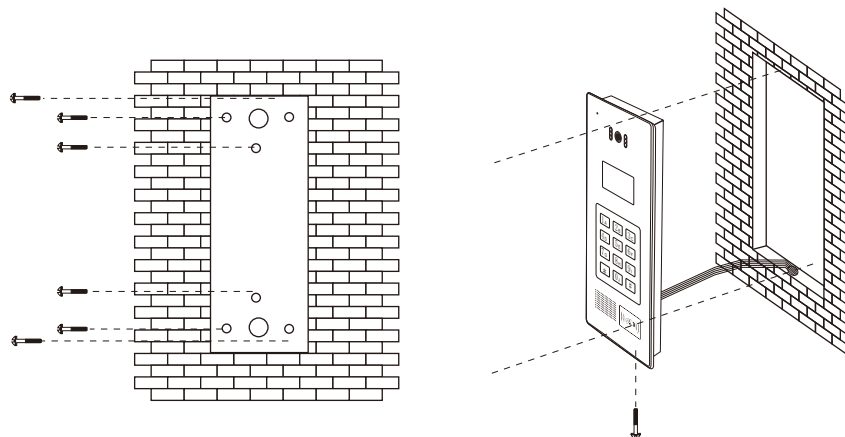
P 6

#### (2) Installation on the wall

Make a slot in the proper position of the wall, the size is the same as installation on the door (as above). The distance between the ground level and the bottom of the outdoor camera is approximately 135cm. Then put the embedded box into the slot and fix it, take care of the depth adjustment.

#### Wall mounting

Drill a hole in the wall according to the below picture, then tuck in the colloidal particle, Fix the rear cover to the wall by using the self tapping screw (M3X6), Fix it tight as the arrow direction shows, use two self tapping screws (M3X20) fix it. The

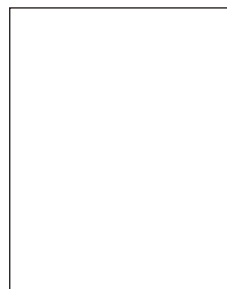


Notice: Different type outdoor unit has different installation size and method

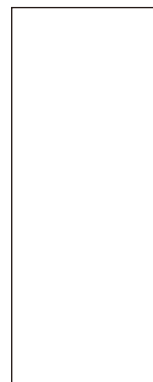
P 7



I type outdoor camera  
embedded box



II type outdoor camera  
embedded box



III type outdoor camera  
embedded box

I type outdoor camera embedded box

Size: 306\*136\*45

Apply to: ASK-881 IS-LED、ASK-881 IS-LCD、ASK-E101 IS-43

II type outdoor camera embedded box

Size: 260 \*204 \*35

Apply to: ASK-881 IIS、ASK-E101-IIS

III type outdoor camera embedded box

Size: 346 \*132 \*43

Apply to: ASK-881 III、ASK-E101-III

## Wiring requirements:

1. All cables of system is adapts national standard CAT5 twisted shielded networking cable, the sectional area is equal or more than 0.5 square millimeter.

2. The sectional area of cable from power to outdoor camera and from outdoor camera to electric lock should be equal or more than 1 square millimeter, and the length should less than 15m, otherwise must enlarge the cable sectional area.

## System installation cautions:

- Please install outdoor camera in good visual level, supposed to be 150cm. (The height of camera lens)
- Don't install video intercom system in the following places: direct sunlight, high temperature, snow, moisture, chemical corrosion and dusty place. (Standard temperature is 0-45℃)
- Far away from the places where strong magnetic field or magnetic interference.
- Select shielded twisted pair CAT 5 for all the networking system, about shielding layer, select metal weave net.
- Shielding layer should well connected with system and handle well GND.
- Better to connect the system in series, select the iron pipe for the wiring pipe as far as possible, both ends of iron pipe have to be connect to the ground. And keep a distance of up to 50cm with high voltage cables (Such as, AC 220V, elevator wire, wired television etc) to improve anti-jamming and lightning protection ability.
- For system stable and maintenance convenient, all networking connection joint cannot be put inside pipe or wet place, solder joint should be handled, and packed with heat shrinkable tube, avoid of water and wet in order to make the system stable and check it conveniently.
- In outdoor unit wiring entrance should consider connect dripline.
- Do not be installed at a place where noise is over 65dB, otherwise, the noise from handset of indoor unit will be loud.
- Don't operate with power during installation.
- After all wires connected, check again and make sure that there is no mistakes then you can operate the system.
- When power on, if system is in abnormal situation. Please cut off power at once until problem solved.
- If system is not normal, cut off the power and check the system part by part according to <simple troubleshooting>. If cannot check out the problem, please inform agent or after-sale service department, do not repair by yourself and change parts due to system damage
- Before you use the IC or ID card for the first time on the outdoor camera with access control, you should register in the management center.

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## Chapter 4 System setup

### Section 1 Outdoor camera

#### Outdoor camera system setup

Press “#” button first, then press “\*” button, input the default password of “9999” to enter into setup interface. The outdoor camera display “P1-5”. The number 1-5 meaning as below.

- 1:Outdoor camera password set
- 2:Melody select
- 3:Unlock password set
- 4:Block number (4 digital number)
- 5:Delete password (restore to factory setting)

#### Outdoor camera password set:

Press “#” button first, then press “\*” button, input the default password of “9999” to enter into setup interface. The outdoor camera display “P1-5”. Then input “1” to enter into password set interface. The next step is input 4 number for password. At last, press “#” button to confirm and finish the setting.

Note: One system can set one password only!

#### Delete password:

Press “#” button first, then press “\*” button, input the set 4 digital password. The outdoor camera display “\_\_\_\_” and “P1-5”. Then input “5” to finish the delete of password and restore factory setting.

You also can press the S1 of outdoor camera main PCB board (should open the cover) for 5 seconds to finish the delete of password and restore factory setting.

Note: The system will restore factory setting after you delete the password!

#### Melody select

Press “#” button first, then press “\*” button, input the default password of “9999” to enter into system setup. The outdoor camera display “P1-5”. Then input “2” to enter melody select set. You can press “2” or “8” to up and down select the melody. At last, press “#” button to confirm and finish the setting.

#### Outdoor camera password unlock setup

Press “#” button first, then press “\*” button, input “9999” for set password. The outdoor camera display “P1-5”. Please input “1” to display original password and input 4 digital new password and press “#” to finish it at once. Screen shows “OK” means set is ok.

#### Outdoor camera unit number setup

Press “#” button first, then press “\*” button, input “9999” for set password. The outdoor camera display “P1-5”. Please input “4” to display original unit number and input 4 digital new unit number and press “#” to finish it at once. Screen shows “OK” means set is ok.

#### Outdoor camera operation

##### 1.Password unlock:

Press “#” button, input 4 digital password is ok for unlock and shows “OPEN”

##### 2.Call indoor monitor:

Input 4 digital room number (also 3 digital room number), then press “#” is ok.

If input wrong number, please press “\*” to clear and input new one.

##### 3.Call management center:

Input “1000”, then press “#” is ok.

### Section 2 Fence machine

The password unlock is the same as outdoor camera.

The location coding method is same as outdoor camera.

### Section 3 Decoder room number

The default room number for the port “F1--F4” of decoder is “1111”, “2222”, “3333” “4444”. You can set it as below steps.

1. Connect “In” port to outdoor camera. The “OUT” port and “F1”, “F2”, “F3”

“F4” ports can connect or not. Power on for outdoor camera and decoder.

2. Press “SET” about 1.5 seconds. The decoder indicate light will off and flash. it means enter into room number set status. You can loose the “SET” button.

3. Press F1 port room number, ie input “0101”, then press “#”button on the outdoor camera to finish the setup. If this port connected with indoor monitor, it will send out bell sound. At last, press “\*” to hang up. The same steps for F2, F3 and F4 port.

4. The decoder enter into normal work mode after 4 room number set within 3 seconds automatically.

If you do not need set all room number, please exist set status as following three methods. The first one is press “SET” about 1.5 seconds. The indicator light will change from flash to light means restore normal work status. The second one is power off and power on for decoder. The third one is wait set over time of 60 seconds, the decoder will exist set status automatically.

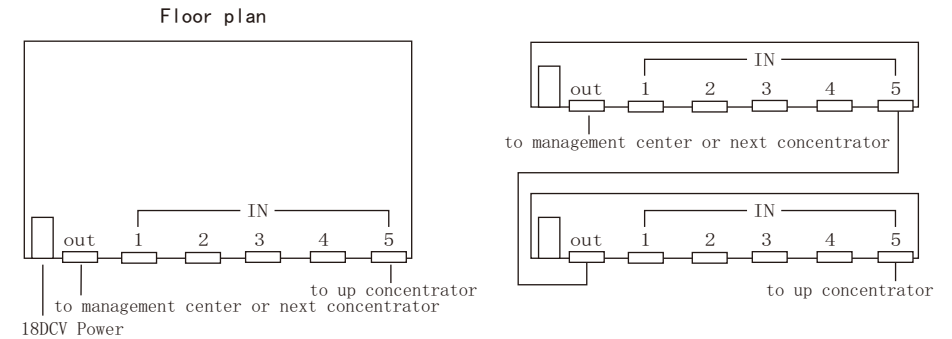
The order of set is from F1 to F4, If you need change the middle room number, you should set from F1, then F2, F3.

Each room number set must be finished within 60 seconds. Otherwise, it will exist set status automatically.

The different port can set same room number in the same decoder. If you set the same room number with different port, the all indoor monitor will ring when visitor call on the outdoor camera. The first one pick up will intercom with outdoor camera and the other ones will hang up automatically.

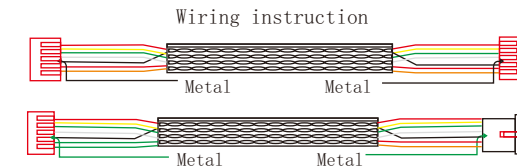
We suggest do not set the same room number on the different decoder. If you do like this, it should all same room number ports connected with indoor monitor. Otherwise, it can not call success. And only the decoder that is the nearest to outdoor camera can get the video. If one indoor monitor answer, the others will hang up automatically.

## Section 4 Concentrator



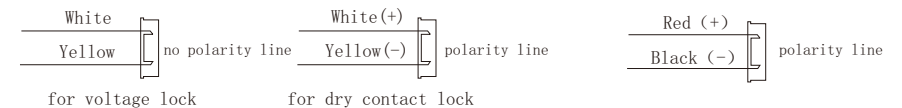
Note: up concentrator can connect with any “IN” port of next concentrator.

Concentrator connection diagram:



A. White Yellow : connect voltage or dry contact lock

B. Red Black: Power (18VDC)



1. IN port connect bus line, port of J1、J2、J3、J4 connect with outdoor camera and fence machine when it is only single concentrator.

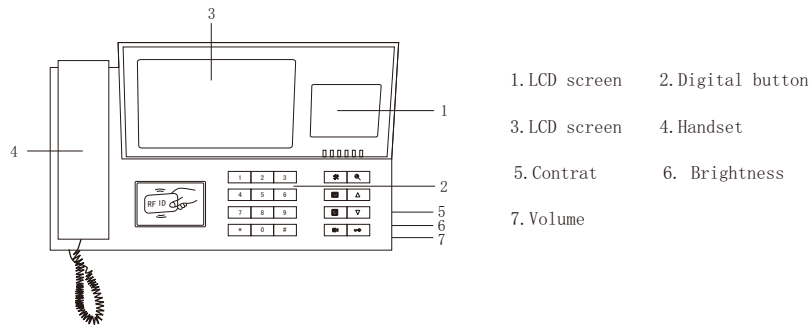
2. If need more than 2 concentrators, you can connect them in series.

Method: make any port of J1-J4 as out port to connect with next concentrator

“IN” port and so on.

Management center has been set before delivery.

## Section 5 Management center



Operation:

Recognize LCD display



The previous three numbers are block numbers, the latter four numbers are floor and room numbers.

Unit number	Room number	(management center call indoor monitor)
Unit numbers	0000	(management center call outdoor camera)



Unit number	Room number	(Indoor monitor call management center, management center display)
Unit number	0000	(Outdoor camera call management center, management center display)

Call function

Management center can call indoor monitor, monitor outdoor camera and other fence machines.

A. Management center call indoor monitor

If the unit system of be called indoor monitor is free (not busy), input unit and room numbers of this indoor monitor on the management center. (total is 8 numbers). Then press “#” button, the management center can intercom with indoor monitor.

B. Management center surveillance outdoor camera

If the called outdoor camera is free (not busy), input unit number and “0000”, then press “#” button, the management center screen open and display the video of outdoor camera.

1 Be called function

Management center can be called by indoor monitor, outdoor camera, fence machine.

A. Be called by indoor monitor

Press “Call” button on the indoor monitor.

B. Outdoor camera call management center

Input “1000” on outdoor camera, then press “#” button to call management center (If it is direct-press outdoor camera, press “management center” button.). The management center will display unit number of outdoor camera + “0000” and ring a sound of “Ding-Dong”. The management center can intercom with outdoor camera after off-hook. Meanwhile the outdoor camera outside image is displayed on management center screen, and press “unlock” button to open the lock of the calling outdoor camera.

Volume adjustment function

When management center intercom with outdoor camera or indoor monitor, revolve the volume adjust knob to adjust hand-free volume.

Brightness adjust function

When management center display image normally, revolve brightness adjust knob to adjust the image brightness.

Contrast adjust function

When management center displays outdoor camera image normally, revolve contrast adjust knob to adjust the image contrast.

## Chapter 5 Common fault handling methods

1. Can not unlock (Intercom is normal)

Fault coverage: unlock circuit

Fault remove and analysis

- Check the line from outdoor camera to electronic lock
- Check L+, L- whether has about 12V voltage output to electronic lock or not
- Check electronic lock coil is damaged or not

2. Outdoor camera can not call indoor monitor

Fault coverage:

- Decoder without encode room number
- Orange and brown line connect wrong
- The cable from decoder to indoor monitor is not connect well
- The distance from decoder to indoor monitor (it is 45 meter by using CAT5 cable), if it is more than 45 meters, you should connect blue white line to GND



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3. Have image, no voice

Fault coverage: intercom circuit

Fault analysis: confirm one unit or whole system problem

Whole system:

a) Check the Yellow and Green line of outdoor camera connect wrong or not

b) Check outdoor camera intercom circuit

One unit: check the Yellow and Green line from decoder to indoor monitor connect wrong or not

4. Monitor and no image

Fault coverage:

A. Video line (Blue line of network cable)

B. Check CCD jack

C. If “Calling” is abnormal, the same as point 2

5. Button is out of work

Fault coverage:

A. System power

B. Main PCB board

C. Contact with manufacturer

## Chapter 6 Technical support and service

1. Our products insist on pre-sale, sale, after-sale service policy in the whole process. Before confirm the project solution, please read this manual instruction carefully, then consult and confirm with technical person of our branch office or agent, large area networking or special project can consult directly with head office technical support center.

2. When install and adjustment these products, please conduct according to this manual instruction strictly. If there is difficulty, please contact with our branch office or agent. For special problem, please contact with our technical person of head office.

3. The explanation rights of this manual instruction is own to our company. Any question in the process of using on engineering guidance, please call our market service center

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## Chapter 7 Other Instructions

Transportation:

This products should be transport in the condition of good package, do not transport unpacked. Avoid of sun light, water, dust and mechanical damage.

Statement

Although our product is a kind of advanced alarm equipment, but if there is artificial damage or system failure will influence system work. According to the alarm information from this equipment, only can reduce suffer loss from theft, rob, fire, gas leak etc, but not guarantee no mistake. Our company assume no responsibility of user's suffer loss from theft, fire etc. for relative reason to claim for compensation from our company. The maximum compensation limit is less than products prices.